Institutional Frameworks For Geothermal Exploration, Development and Utilization in Ethiopia

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The strategies consist of accelerated development of indigenous energy resources.

Promotion of private investment in the production and supply of energy (encourage to participate in power development investment).

Transmission and distribution of electricity in all parts of the country.
Applicable Legislation

- Electricity Legislation
- Investment Legislation
- Environmental Protection Legislation
- Mining Legislation (Investment in geothermal resource development is subjected to the Mining Proclamation No. 52/1993, as amended, which provides licensing for the duration of “resource life”)

Institutional Mandates

- The Ethiopian Electricity Agency (EEA) is responsible for the licensing and regulation of electric supply systems.
- The Ethiopian Electric Power Corporation (EEPCo) is responsible for the generation, transmission, distribution and sale of electric power. It may purchase bulk power from an IPP.
- The Ethiopian Rural Electrification Fund (REF) is responsible for the promotion and support of private sector, cooperatives and community based associations to involve in power supply business in rural areas that are not served by the EEPCo grid.
- The Ethiopian Investment Authority (EIA) has the responsibility for the licensing of investments.
- Ministry of Mines (MoM) is responsible for the development of Geothermal resource, subject to Electricity Proclamation.

- The Ethiopian Environmental Protection (EPA) has the responsibility for the authorization of projects licensed under federal authority and to monitor implementation and operation.

- Geological Survey of Ethiopia (GSE) under MoM undertakes studies and surveys about the earth’s crust and mineral contained in it, applying earth science techniques and to prospect, explore and as the case may be estimate and delineate mineral deposits.
A pilot power plant of 8.2MWe capacity was commissioned in 1998 at the Aluto-Langano geothermal field.

The pilot plant is a combined binary cycle unit designed to utilize power from the four exploratory deep wells. The designed gross and net power output of the pilot plant is 8.5 and 7.3 MWe respectively.

However, due to various problems encountered during the operation of the pilot plant, it was not possible to generate the designed amount. The plant was shut down since July 2002.

At present a project is launched by the Ethiopian Electric Power Corporation (EEPCo) to identify the problems and rehabilitate the power plant.
At the moment there is proposal to develop the Tendaho shallow wells by the Norway Green Energy Group AS company.

The proposal to assemble 2.5-5MW Wellhead turbine.

The wellhead turbine is a modular geothermal power production unit or a power plant, built on container frames for transportability.
The First Geothermal License in Ethiopia
April 22, 1903

Utilization

- For hotels (balneology), medical purposes, water harvesting (condensate of fumaroles)
Direct uses of geothermal water

Langano

Corbetti area

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